**Problem of the Week #7 Q3**

Due 2/16/11 by 3:15 PM

Turn in to the “POW Cubby” in the Math Office or email to 13mmistele@ransomeverglades.org.

***The Platypus Challenge (not for the faint of spirit)***

In order to join the math team at Platypus High, members must guess a secret whole number from 1 to 50 by asking yes-or-no questions. Dan the Disgruntlefish wanted to join, so he asked the following four questions:

a. “Eh… is the number greater than 25?”

b. “Er-hrm… is the number evenly divisible by 2?”

c. “Well then… is the number evenly divisible by 3?”

d. [*Thoroughly disgruntled*] “Is the number divisible by 5?”

After he was told the answers, Dan could still not figure out the secret number. Dan then asked, “Is the number a perfect square?” When he got the reply “No,” Dan knew what the number was, and thus he was welcomed to the math team and he became a Not-So-Disgruntled-Fish.

**Your challenge: determine what the number is.**

(One path-to-disgruntled-frustration-saving hint: if you are going to use some kind of process of elimination, try it on the squares, not on all 16 of the possible question-answer combinations. That’s all the advice we’ve got. Happy puzzling!)